

CLAIMS

1. A photographing device comprising a sensor (23) and optical means (1) through which the device receives light radiation in an object field and directs it toward the sensor (23), characterized in that the optical means (1) comprise a plurality of entry pupils (20), each observing a part (2 to 5) of the object field, in that the light radiation observed by each pupil (20) is directed toward a separate part of the sensor (23) by the optical means (1), and in that the optical path followed by the radiation passing through each pupil (20) has a catadioptric configuration (21,22).

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2. The device as claimed in claim 1, characterized in that the various parts (2 to 5) of the object field partially overlap.

20 3. The device as claimed in one of the preceding claims, characterized in that each part (2 to 5) of the object field is associated with a useful part (14 to 17) of an image plane formed on the sensor (23) by the optical means (1), and in that the various useful parts (14 to 17) are separated by a space (18).

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4. The device as claimed in claim 3, characterized in that the sensor (23) is produced on a

substrate, and in that signal processing means are produced in the space (18) on the substrate.

5. The device as claimed in one of the preceding  
5 claims, characterized in that each part (2 to 5) of the object field is associated with a useful part (14 to 17) of an image plane formed on the sensor (23) by the optical means (1), and in that the entry pupils (20) have a geometry similar to that of the useful parts (14  
10 to 17).

6. The device as claimed in one of the preceding  
claims, characterized in that the optical means (1) comprise at least one element (21, 22) with negative  
15 optical power.

7. The device as claimed in one of the preceding  
claims, characterized in that the optical means (1) are produced in a single transparent piece.  
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8. The device as claimed in one of the preceding  
claims, characterized in that the optical means (1) comprise at least two mirrors (21, 22) associated with each part of the object field.  
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9. The device as claimed in one of the preceding  
claims, characterized in that the light radiation observed by each pupil (20) is constantly directed toward a separate part of the sensor (23) by the  
30 optical means (1).